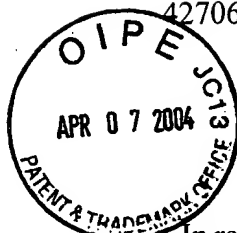


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4/19/04



42706.0800 (BH60)

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Jason Robert Malaure et al.

U.S. Serial No.: 09/366,064

Filed: August 2, 1999

For: DELIVERING INTERACTIVE
APPLICATIONS

Patent Examiner: Huynh, Son P.

Group Art Unit: 2611

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APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

On February 10, 2004, applicants filed a Notice of Appeal to the Board of Patent Appeals and Interferences, along with a Petition for a two-month extension of time, appealing from the Final Rejection of the Primary Examiner dated September 11, 2003, rejecting claims 1-9 and 11-22, and from the Advisory Action dated January 16, 2004, maintaining the rejections of claims 1-9, and 11-22. This brief is filed in triplicate along with the requisite fee set forth in 37 CFR § 1.17(f).

I. REAL PARTY IN INTEREST.

The present invention has been assigned to Two Way TV Limited, a United Kingdom Company, by the inventor applicants, Jason Robert Malaure, Richard Andrew Kydd, and Simon Anthony Vivian Cornwell. The real party in interest is Two Way Media Limited.

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II. RELATED APPEALS AND INTERFERENCES.

This is the first appeal in this application. There are no continuations on file.

III. STATUS OF THE CLAIMS.

Claims 1-9 and 11-22, all the claims in the case, stand rejected under 35 U.S.C. § 103.

IV. STATUS OF AMENDMENTS.

All submitted amendments have been entered. In the Advisory Action of January 16, 2004, applicants' proposed Amendment After Final was entered for purposes of appeal. The rejection of claims 1-9 and 11-22 was continued.

V. SUMMARY OF THE INVENTION.

The present invention provides a method and apparatus for delivering an interactive application to a number of target platforms, wherein each target platform is a different broadcast network with unique data protocols, or a user interface which has unique memory capabilities. The present invention allows programmers to generate a single set of application components in any desired format without needing to know anything about the ultimate target platform and its requirements. The broadcast system interfaces of the present invention convert the application components, as required for each respective target platform, before or during a broadcast to that target platform. The broadcast networks contemplated in the present invention are, for example, NCI DTV Navigator, Open TV/Digital TV, MHEG-5, Web TV/WinCE, Power TV. Each of these broadcast protocols defines a format for the transmitted information. For example, one protocol might utilize all ASCII text. Another protocol might use MPEG-2 data packets. The different broadcast protocols could also use different transmission techniques. By eliminating the requirement of having to provide multiple sets of application components, wherein each application component complies with the broadcast protocol of each respective target platform, the programmers providing the application components, such as executable program files, bit

maps, sound samples, real-time data instruction and video clips, for example, do not have to be concerned beyond providing a single set of application components in a desired format. The broadcast system interface associated with its respective target platform converts the application components into a plurality of streams of broadcast data wherein each individual stream of broadcast data conforms with the broadcast protocol of the respective target platform. The conversion of an application component to its broadcast data stream for a specific target platform may involve, for example, translation, substitution, selection, timing changes, as well as changing the data transmission mechanism.

The overriding concept of the present invention is to provide one set of application components in one desired format, and the system and method will take care of getting the application components to any target platform in the system, regardless of the broadcast protocol being used by that target platform.

VI. ISSUES.

Claims 1-9 and 11-22 are all the claims in the application. Claims 1 and 9 are independent. Claim 1 is a method claim. Claim 9 is an apparatus claim.

The issues are whether claims 1-9, 11-14, 18 and 19 are patentable under 35 U.S.C. § 103(a) over *Travaille et al.* (US 6,067,107) in view of *Agraharam et al.* (US 6,389,471), and *Goodman et al.* (US 6,427,238), and whether claims 15-17 and 20-22 are patentable under 35 U.S.C. § 103(a) over *Travaille et al.* in view of *Agraharam et al.*, *Goodman et al.* and *Lappington et al.* (US 5,764,275).

VII. GROUPING OF THE CLAIMS.

Claims 1-8, 11, 12, and 14-17 are method claims in one group. Claims 9, 13, 18, and 19-22 are apparatus claims in a second group. Claim 1 is the independent method claim. Claim

9 is the independent apparatus claim. All the claims must be considered independently in light of the prior art to determine their individual patentability.

VIII. ARGUMENT.

A. The Invention.

The present invention is a method of delivering an interactive application having a set of application components (for example, executable program files, bit maps, sound samples, real time data instructions and video clips) to a plurality of target platforms, wherein each target platform is a different broadcast network operating under unique broadcast protocols (all ASCII text, or MPEG-2, different transmission techniques, for example). The invention contemplates providing a set of application components in one format and then converting the set of application components into a plurality of streams of broadcast data, each stream of broadcast data conforming with the broadcast protocol of the respective target platform. The conversion process could involve translation, substitution, selection, timing changes and data transmission mechanism changes, for example. Once the application components have been converted into multiple streams of broadcast data, each stream of broadcast data is delivered to its respective target platform.

The present invention also contemplates an apparatus for practicing the above method. The apparatus provides a set of application components of the type described above. A plurality of broadcast system interfaces, one for each of the different target platforms in the system, converts the set of application components into a broadcast data stream suited specifically for the broadcast protocol of the target platform. Once these conversions have been accomplished, the stream of broadcast data is delivered to the respective target platform.

B. The Prior Art.

1. Travaille et al. (US 6,067,107).

The *Travaille et al.* reference is directed to a system and method that allows for the reassignment of priority values given to responses to interactive applications. The priority values assigned to these responses are reassigned or updated once each polling period. Each broadcast receiver uses the priority value to determine if it will execute and store the responses for the currently received interactive application or reserve memory capacity for higher priority responses.

Travaille et al. describes a preferred process for transmitting his interactive applications which involves the use of a data insertion unit (DUI) to incorporate the interactive application into the broadcast feed, concurrent with the broadcasting of the program (column 5, lines 15-35). *Travaille et al.* describes a method of inserting the data defining the interactive application into a certain preferred broadcast medium. *Travaille* also describes a variety of other transport mechanisms that might be utilized to transport his interactive application separately from the broadcast program (column 5, lines 37-66).

Travaille et al. does not disclose or contemplate the concept of a system having a plurality of different target platforms, each utilizing a different broadcast protocol. Nor does he contemplate the concept of converting a set of application components into a plurality of streams of broadcast data so that it can be received by respective target platforms using different broadcast protocols.

2. Agraharam et al. (US 6,389,471).

Agraharam et al. is directed to a system and method by which an Internet user can assemble audio-visual information in a multimedia document and broadcast that information to a predetermined group for simultaneous viewing. During this broadcast, members

of the predetermined group receiving the broadcast can interact with the Internet user by using a standard telephone or other audio connection. *Agraharam et al.* contemplates that because information retrieved from the Web is generally in hypertext markup language (HTML), it may be necessary to convert the HTML to a format that is compatible with the broadcast receiver which operates in MPEG-2 format. Accordingly, *Agraharam et al.* provides for a broadcast interface to encode the HTML multimedia documents into MPEG-2 format (column 4, lines 40-48).

Agraharam's suggestion of converting information in HTML format to MPEG-2 format so that it can be received by MPEG-2 receivers used by the predetermined group does not contemplate a system in which there are a plurality of target platforms, each having different broadcast protocols, and converting the single set of application components into a plurality of streams of broadcast data wherein each stream of broadcast data conforms with a respective broadcast protocol of its respective target platform.

3. *Goodman et al.* (US 6,427,238).

Goodman et al. is directed to a system and method for managing modules of interactive television applications wherein the modules may comprise components of an interactive application. *Goodman* contemplates transmitting these modules to a plurality of receiving stations by using various paths such as broadcast channels and modem channels.

Goodman does not contemplate broadcasting of his modules to a plurality of receiving stations wherein each receiving station utilizes a different broadcast protocol. *Goodman* does not contemplate converting a set of application components into a plurality of streams of broadcast data wherein each stream of broadcast data conforms to the broadcast protocol requirements of a respective target platform.

4. Lappington et al. (US 5,764,275).

Lappington et al. is directed to a system for providing security for an interactive television system. *Lappington* provides that security by using time stamps for interactive data separately sent to the same remote location. The time stamps for the interactive data are checked at the remote location against a remote clock, and the time differences are noted for the sets of data. The time differences are compared to determine if one set of data has been delayed as compared to the other. Only non-delayed data is used to update a game score for the interactive game. Delayed data is assumed to be data obtained by cheating.

Lappington does not contemplate a method of delivering an interactive application to a plurality of target platforms, each target platform being a different broadcast network with different broadcast protocols, nor the converting of a set of application components into a plurality of streams of broadcast data wherein each stream of broadcast data conforms with the requirements of the broadcast protocol of a respective target platform.

C. Applicants' Claims Are Patentable Over the Prior Art.

Claims 1-9, 11-14, 18 and 19 were rejected under 35 U.S.C. Section 103(a) as unpatentable over *Travaille et al.* in view of *Agraharam et al.* and *Goodman et al.*

The Office Action concedes that,

“Travail does not specifically disclose each broadcast network operating a respectively different broadcast protocols and the interactive application comprises components.”

(Office Action, dated 9/11/03, page 4.)

The Office Action relies on *Agraharam* for a teaching that:

“each broadcast network operating a respectively different
broadcast protocols”

(Office Action of 9/11/03, page 4.)

The Office Action reaches this conclusion on the basis of *Agraharam*, stating in column 4, lines 41-48, that since information in the Web is in hypertext markup language (HTML), it may be necessary to convert the information retrieved from the Web to a format that is compatible with the broadcast receiver which is operating in MPEG-2 format.

This is hardly a suggestion of a system for delivering an interactive application to a plurality of target platforms wherein each target platform utilizes different broadcast protocols by taking a single set of application components and converting the application components into a plurality of streams of broadcast data wherein each stream of broadcast data conforms with the particular broadcast protocol of a respective target platform.

Agraharam's suggestion of converting HTML into MPEG-2, a digital audiovisual stream, is not even the type of conversion contemplated by the present claimed invention. Conversion of HTML to MPEG-2 is essentially the same as filming the screen of a PC monitor displaying the HTML presentation, and broadcasting it as a digital TV channel. In other words, what is broadcast is no longer an application made up of separate multimedia components (graphics, sound samples, bit maps, etc.), but rather is a basic audio-video broadcast akin to that used in a TV channel.

The Office Action also recognizes that neither *Travaille* nor *Agraharam* discloses that the interactive application comprises components (Office Action of 9/11/03, page 4).

The Office Action relies on *Goodman* for the suggestion that

“the modules contained in the signals from module sources
may comprise components of an interactive application . . .

Therefore, the interactive application comprises ‘a set of
application components.’”

Goodman’s suggestion that the modules contained in the signals from the module sources may comprise components of an interactive application, and that an interactive application may consist of a series of modules, including a directory module, fails to contemplate converting a set of application components into a plurality of streams of broadcast data wherein each stream of broadcast data conforms with the different broadcast protocol of a respective target platform.

As noted in *In re Rijckaert*, 28 USPQ2d 1955, 1956 (CAFC 1993),

“In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. *Id.* ‘A *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.’ *In re Bell*, 991 F.2d 781, 782, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) quoting *In re Reinhart*, 531 F.2d 1048, 1051, 189

USPQ 143, 147 (CCPA 1976). If the examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned.”

Applicants submit that the Office Action does not establish a *prima facie* case of obviousness by the combination of *Travaille*, *Agraharam* and *Goodman* because none of these references contemplate a method or apparatus of delivering an interactive application to a plurality of target platforms wherein each target platform has a different broadcast protocol by converting that set of application components into a plurality of streams of broadcast data wherein each stream of broadcast data conforms with the different broadcast protocol of the respective target platform. The Office Action’s reference to *Agraharam* and his suggestion of converting data recovered from the Internet in HTML format to MPEG-2 format so it can be received by MPEG-2 broadcast receivers does not contemplate applicants’ claimed invention.

With respect to claim 1, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with respect to a method of delivering an interactive application to a plurality of target platforms wherein each target platform is a broadcast network utilizing a different broadcast protocol, the method comprising “providing a set of application components; converting the set of application components into a plurality of streams of broadcast data, each stream of broadcast data conforming with the respective target platform.”

With respect to claim 2, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with the steps of claim 1,

“manually inputting real-time application data;

converting the real time application data into a

plurality of streams of real-time broadcast data, each stream

of real time broadcast data conforming with the respective target platform;”

With respect to claim 3, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with the steps of claim 1,

“storing the application components and/or real-time application data in a data store; and retrieving the application components and/or real-time application from the data store before converting it into a stream of broadcast data.”

With respect to claim 4, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with the steps of claim 1,

“wherein the step of converting comprises translating, substituting, selecting, time managing, or adapting for different data transmission mechanisms.”

With respect to claim 5, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with the steps of claim 1,

“receiving and processing return data from one or more of the target platforms.”

With respect to claim 6, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with the steps of claim 1 and claim 5,

“the application comprises a game and the return data comprises game-play input.”

With respect to claim 7, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with the steps of claim 1:

“each target platform comprises an application processor.”

With respect to claim 8, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with the steps of with claim 1 and claim 7:

“interrogating the application processor to determine the data capabilities of the application processor; and downloading data from the stream of broadcast data in accordance with the determined data capabilities of the application processor.”

With respect to claim 11, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with the steps of claim 1:

“the application components comprise one or more of executable program files, bit maps, sound samples, real-time data instructions, and video chips.”

With respect to claim 12, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with the steps of claim 4 and claim 1:

“substituting an application component with an alternative component on one of the broadcast data streams.”

With respect to claim 14, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with the steps of claim 1:

“each target platform comprises a plurality of application processors.”

With respect to claim 9, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach an apparatus for delivering an interactive application to a plurality of target platforms wherein each platform is a different broadcast network using a different, unique broadcast protocol, the apparatus comprising:

“a system for providing a set of application components; a plurality of broadcast system interfaces each converting the set of application components into a respective stream of broadcast data, conforming with the respective target platform.”

With respect to claim 18, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with the elements of claim 9:

“each target platform comprises an application processor.”

With respect to claim 19, the combination of *Travaille*, *Agraharam* and *Goodman* does not disclose or teach, with the elements of claim 9:

“each target platform comprises a plurality of application processors.”

Claims 15-17 and 20-22 were rejected under 35 U.S.C. § 103(a) as unpatentable over *Travaille et al.* in view of *Agraharam et al.* and *Goodman et al.*, and further in view of *Lappington et al.* (US 5,764,275).

Applicants reassert here the arguments presented above regarding the failure of the combination of *Travaille*, *Agraharam* and *Goodman* to disclose or teach the invention as recited in claims 1, 9 and 14.

The Office Action asserts:

“none of these references explicitly disclose the converting step compensates for timing differences between the broadcast networks in handling the broadcast data so as to temporarily synchronize the broadcast data at each application processor.”

(Office Action of 9/11/03, page 8.)

The Office Action then refers to *Lappington* for a teaching that:

“compensates for timing differences between the broadcast networks in handling the broadcast data so as to temporally synchronize the broadcast data at each application processor (delaying transmitted signals- see col. 3, line 19+).”

(Office Action of 9/11/03, page 8.)

The *Lappington et al.* patent is directed to a system that guards against cheating in an interactive television system. *Lappington* recommends the use of a time stamping technique to embed a time stamp within the interactive data. The difference between the embedded time stamp in the interactive data and a reference clock is then compared for successive sets of interactive data to determine whether one of the sets is delayed as compared to the other. This comparison enables the hand-held terminal to determine which scores to eliminate and which scores are legitimate, the delayed scores being eliminated. This process of *Lappington*, a process designed to catch cheating by finding out which interactive data has been unduly delayed is

hardly a teaching of compensating for timing difference by synchronizing the broadcast data at each application processor.

With respect to claim 15, the combination of *Travaille*, in view of *Agraharam*, *Goodman* and *Lappington*, does not disclose or teach, with the steps of claim 14 and claim 1:

“the converting step compensates for timing differences between the broadcast networks in handling the broadcast data so as to temporally synchronize the broadcast data at each application processor.”

With respect to claim 16, the combination of *Travaille*, in view of *Agraharam*, *Goodman* and *Lappington*, does not disclose or teach, with the steps of claim 15, claim 14 and claim 1:

“the compensation is achieved by selectively delaying broadcast of data to the target platforms.”

With respect to claim 17, the combination of *Travaille*, in view of *Agraharam*, *Goodman* and *Lappington*, does not disclose or teach, with the steps of claim 15, claim 14 and claim 1:

“the compensation is achieved by including timing information in the broadcast data.”

With respect to claim 20, the combination of the combination of *Travaille*, in view of *Agraharam*, *Goodman* and *Lappington*, does not disclose or teach, with the elements of claim 19 and claim 9:

“the broadcast systems interfaces compensate for timing differences between the broadcast networks in handling the

broadcast data so as to temporally synchronise the
broadcast data at each application processor.”

With respect to claim 21, the combination of *Travaille* in view of *Agraharam*, *Goodman* and *Lappington*, does not disclose or teach with the elements of claim 20, claim 19 and claim 9:

“the broadcast systems interfaces carry out the
compensation step by selectively delaying the broadcast of
data to the target platforms.”

With respect to claim 22, the combination of the combination of *Travaille* in view of *Agraharam*, *Goodman* and *Lappington*, does not disclose or teach, with the elements of claim 20, claim 19 and claim 9:

“the broadcast systems interfaces carry out the
compensation step by including timing information in the
broadcast data.”

IX. CONCLUSION.

Claims 1-9, 11-14, 18, and 19 are patentable over the combination of *Travaille*, *Agraharam* and *Goodman* because the combination does suggest the invention as set forth in these claims.

Claims 15-17 and 20-22 are patentable over the combination of *Travaille*, *Agraharam*, *Goodman* and *Lappington* because the combination does not suggest the invention as set forth in these claims.

X. ORAL ARGUMENT.

No oral argument is requested.

I certify that this document and fee is being deposited on April 7, 2004 with the U.S. Postal Service "Express Mail Post Office to Addressee" service as Express Mail No. EV338057158US under 37 C.F.R. 1.10 and is addressed to Mail Stop Appeal Brief – Patents, Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.


By: Marc Fregoso

Marc Fregoso
Signature

Dated: April 7, 2004

Respectfully submitted,

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APPENDIX

OF

CLAIMS ON APPEAL

CLAIMS ON APPEAL

1 1. A method of delivering an interactive application to a plurality of target platforms
2 constituted by different broadcast networks, each broadcast network operating a respectively
3 different broadcast protocol, the method comprising:

4 providing a set of application components;

5 converting the set of application components into a plurality of streams of
6 broadcast data, each stream of broadcast data conforming with a respective target platform; and

7 delivering each stream of broadcast data to its respective target platform.

1 2. A method according to claim 1 further comprising manually inputting real-time
2 application data;

3 converting the real-time application data into a plurality of streams of real-time
4 broadcast data, each stream of real-time broadcast data conforming with a respective target
5 platform; and

6 delivering each stream of real-time broadcast data to its respective target platform.

1 3. A method according to claim 1, further comprising storing the application
2 components and/or real-time application data in a data store; and retrieving the application
3 components and/or real-time application data from the data store before converting it into a
4 stream of broadcast data.

1 4. A method according to claim 1, wherein the step of converting comprises
2 translating, substituting, selecting, time managing, or adapting for different data transmission
3 mechanisms.

1 5. A method according to claim 1, further comprising receiving and processing
2 return data from one or more of the target platforms.

1 6. A method according to claim 5 wherein the application comprises a game and the
2 return data comprises game-play input.

1 7. A method according to claim 1, wherein each target platform comprises an
2 application processor.

1 8. A method according to claim 7 further comprising interrogating the application
2 processor to determine the data capabilities of the application processor; and downloading data
3 from the stream of broadcast data in accordance with the determined data capabilities of the
4 application processor.

1 9. Apparatus for delivering an interactive application to a plurality of target
2 platforms constituted by respective different broadcast networks, each broadcast network
3 operating a respectively different broadcast protocol, the apparatus comprising:

4 a system for providing a set of application components;

5 a plurality of broadcast systems interfaces each converting the set of application
6 components into a respective stream of broadcast data, conforming with the respective target
7 platform;

8 a system for delivering each stream of broadcast data to its respective target
9 platform.

1 11. A method according to claim 1, wherein the application components comprise one
2 or more of executable program files, bit maps, sound samples, real-time data instructions, and
3 video chips.

1 12. A method according to claim 4, the method comprising substituting an application
2 component with an alternative component on one of the broadcast data streams.

1 13. Apparatus according to claim 9, the apparatus further comprising means for
2 substituting an application component with an alternative component on one of the broadcast
3 data streams.

1 14. A method according to claim 1, wherein each target platform comprises a
2 plurality of application processors.

1 15. A method according to claim 14, wherein the converting step compensates for
2 timing differences between the broadcast networks in handling the broadcast data so as to
3 temporally synchronise the broadcast data at each application processor.

1 16. A method according to claim 15, wherein the compensation is achieved by
2 selectively delaying broadcast of data to the target platforms.

1 17. A method according to claim 15, wherein the compensation is achieved by
2 including timing information in the broadcast data.

1 18. Apparatus according to claim 9, wherein each target platform comprises an
2 application processor.

1 19. Apparatus according to claim 9, wherein each target platform comprises a
2 plurality of application processors.

1 20. Apparatus according to claim 19, wherein the broadcast systems interfaces
2 compensate for timing differences between the broadcast networks in handling the broadcast data
3 so as to temporally synchronise the broadcast data at each application processor.

1 21. Apparatus according to claim 20, wherein the broadcast systems interfaces carry
2 out the compensation step by selectively delaying the broadcast of data to the target platforms.

1 22. Apparatus according to claim 20, wherein the broadcast systems interfaces carry
2 out the compensation step by including timing information in the broadcast data.